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To: Camp Directors  
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From: Susan M. Lett, M.D., M.P.H., Medical Director, Immunization Program,  
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Re: 1) Mumps Outbreaks  
2) Immunization Requirements for Recreational Camps for Children  
3) Reporting of Suspect Mumps Cases and Control Measures

Date: June 2006

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In light of the recent national mumps outbreaks, the Massachusetts Department of Public Health (MDPH) would like to remind you of the existing immunization requirements for campers and staff related to mumps, and review the reporting of suspect mumps cases and control measures.

### **Mumps Outbreaks**

Nationwide, more than 4,000 cases of mumps have been identified since January 2006. This is the largest mumps outbreak in the United States in 20 years. Most of the cases have occurred in Iowa and several other Midwestern states. Most of the cases have been associated with students and other young adults. However, other parts of the country are now being affected and may be affected further by this outbreak. Since January 2006, MDPH has investigated more than 70 suspect cases of mumps. To date, only 3 cases have been confirmed. However, we anticipate additional cases to occur during the summer months. None of the cases identified in Massachusetts have been linked to the Midwest outbreaks, but with the end of the school year and travel this could change.

Mumps remains common in many parts of the world, including in Western Europe. Therefore, spread within the United States from the domestic outbreak, as well as from international travel, is still possible, especially for camps. Last year a mumps outbreak occurred in a New York state summer camp and involved 31 cases. Mumps was likely introduced by an unvaccinated camp counselor from the United Kingdom. In Massachusetts, one case was confirmed as a result of the New York outbreak.

### **Mumps Vaccine Requirements**

#### **1. Campers and Staff < 18 years of age**

Campers and staff < 18 years of age are **required** to have 1 dose of mumps, 1 dose of rubella and 2 doses of a measles-containing vaccine, unless they have laboratory evidence of immunity (105 CMR 430.152 A). In Massachusetts, children in child care centers are required to have 1 dose of measles,

mumps and rubella vaccine and all students in kindergarten through college are required to have 1 dose of mumps and rubella and 2 doses of a measles-containing vaccine (102 CMR 7.09 and 105 CMR 220.400).

Since the MDPH Immunization Program only supplies the combination measles, mumps and rubella (MMR) vaccine, campers or staff who have attended school and college in Massachusetts, and are in at least kindergarten, should already have 2 doses of mumps-containing vaccine. This may not be the case, however, for campers and staff from other states and countries.

## **2. Campers and Staff $\geq$ 18 years of age**

The current requirement for campers and staff  $\geq$  18 years of age and born in or after 1957 is also for 1 dose of mumps, 1 dose of rubella and 2 doses of a measles-containing vaccine, unless they have laboratory evidence of immunity (105 CMR 430.152 B). No requirement exists for those born before 1957.

The current immunization requirements for campers and staff (105 CMR 430.152) are summarized in the attached table *Required Immunizations for Campers and Staff*. All Campers and staff born in 1957 or after must provide written documentation of immunizations. If documentation is not provided, the individual cannot be hired as a staff member or admitted as a camper.

## **Recommendations**

To prevent mumps transmission in camps, MDPH now recommends for:

- **Campers and staff born in or after 1957** – Review the immunization records of individuals in this age group and recommend they have 2 doses of MMR vaccine.
- **Staff born before 1957** – While birth before 1957 is usually considered adequate proof of immunity (because most people born before 1957 are likely to have been naturally infected), this does not guarantee immunity. In order to better protect older staff against mumps, camps may wish to recommend 1 dose of MMR or a mumps-containing vaccine for these individuals (unless they have laboratory evidence of immunity).

Please keep in mind that many campers and staff may be from other states and countries that do not have the same immunization requirements as Massachusetts and special vigilance should be made in ensuring they are up-to-date with current camp recommendations.

## **Reporting and Control Measures**

All suspect cases of mumps must be reported to your local board of health and to the MDPH Immunization Program at (617) 983-6800 or (888) 658-2850. An immunization epidemiologist will assist you in the development of control measures. More detailed guidance can be found in the mumps chapter of MDPH's *Guide to Surveillance and Reporting*, which is located on the department's website at <http://www.mass.gov/dph/cdc/gsrman/gsr.htm>.

Data from outbreak investigations have shown that the effectiveness of measles, mumps and rubella (MMR) vaccine against mumps is approximately 80 percent after one dose and limited data suggest effectiveness of approximately 90 percent after two doses.

Should cases of mumps be identified, 2 doses of mumps vaccine (administered  $\geq$  28 days apart) will be required for all camp attendees and staff.

Campers and staff who are not appropriately immunized (or do not have laboratory evidence of immunity) will need to be isolated or excluded from day 12 through day 26 after exposure to a case or suspect case of mumps (105 CMR 300.200).

### **State-Supplied MMR Vaccine**

State-supplied MMR vaccine is available for: 1) routine vaccination of Massachusetts children less than 19 years of age; 2) outbreak control; 3) Massachusetts college students; and 4) adults in high-risk groups seen at public provider sites, such as health department clinics and community health centers. MMR will need to be purchased for all other individuals, including the routine immunization of campers and staff from other states and countries (except for outbreak control).

- For more information about mumps and its control in Massachusetts, please visit the MDPH website at <http://www.mass.gov/dph/cdc/epii/imm/imm.htm#mumps>.
- Additional information is also available at the Centers for Disease Control and Prevention (CDC) website at <http://www.cdc.gov/nip/diseases/mumps/default.htm>.
- For a copy of regulations for recreational camps for children (105 CMR 430.000), please visit <http://www.mass.gov/Eeohhs2/docs/dph/regs/105cmr430.pdf>.

If you have any questions about the regulation, recommendations, vaccine availability or other mumps-related issues, please contact MDPH's Division of Epidemiology and Immunization at (617) 983-6800 or (888) 658-2850.

### **References**

CDC. Updated recommendations of the Advisory Committee on Immunization Practices (ACIP) for the control and elimination of mumps. MMWR 2006;55:1-2. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm55e601a1.htm>

CDC. Update: Multistate outbreak of mumps – United States, January 1 - May 2, 2006. MMWR 2006;55:559-63. <http://www.cdc.gov/mmwr/PDF/wk/mm5520.pdf>

CDC. Mumps outbreak at a summer camp – New York, 2005. MMWR 2006;55:175-177. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5507a2.htm>

CDC. Health Advisory. <http://www.phppo.cdc.gov/HAN/ArchiveSys/ViewMsgV.asp?AlertNum=00243>

CDC. Measles, mumps, and rubella – vaccine use and strategies for elimination of measles, rubella, and congenital rubella syndrome and control of mumps. Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1998;47(No. RR-8):1-57. <http://www.cdc.gov/mmwr/PDF/rr/rr4708.pdf>

CDC. Mumps Case Investigation and Outbreak Control. <http://www.cdc.gov/nip/diseases/mumps/mumps-control.htm>

**Required Immunizations for Campers and Staff**  
 (105 CMR 430.152)

	<b>For Campers <u>and</u> Staff &lt; 18 years or age</b>	<b>For Campers <u>and</u> Staff ≥ 18 years of age</b>
<b>MMR<sup>1</sup></b>	2 doses measles, 1 dose mumps, 1 dose rubella	2 doses measles <sup>2</sup> , 1 dose mumps <sup>2</sup> , 1 dose rubella <sup>2</sup>
<b>Polio</b>	≥ 3 doses of either inactivated poliovirus vaccine (IPV) or oral poliovirus vaccine (OPV). If a mixed schedule of IPV/OPV was used, 4 doses are required.	No requirement.
<b>DTaP/DTP/DT/Td</b>	≥ 4 doses DTaP/DTP/DT or ≥ 3 doses Td <sup>3</sup> . A booster dose of Td is required for all campers and staff who will be entering: <ul style="list-style-type: none"> <li>• grades 7 – 10<sup>4</sup> if it has been more than 5 years since the last dose of DTaP/DTP/DT;</li> <li>• grades 11 and 12<sup>5</sup> if it has been more than 10 years since the last dose of DTaP/DTP/DT/Td.</li> </ul> (Tdap is also acceptable.)	≥ 3 doses DTaP/DTP/Td <sup>3</sup> . A booster dose of Td is required if > 10 years since the last dose of DTaP/DTP/DT/Td vaccine. (Tdap is also acceptable).
<b>Hepatitis B<sup>1</sup></b>	3 doses for all children born on or after January 1, 1992.	No requirement.

<sup>1</sup> Laboratory proof of immunity to measles, mumps, rubella and hepatitis B is acceptable.

<sup>2</sup> Not required if born before 1957.

<sup>3</sup> Where a camper or staff person is ≥ 7 years of age and requires additional immunizations, Td is to be substituted for DTaP, DTP or DT vaccine.

<sup>4</sup> In the case of an ungraded classroom or the camper or staff does not attend school, campers or staff 12 through 15 years of age.

<sup>5</sup> In the case of an ungraded classroom or the camper or staff does not attend school, campers or staff 16 through 17 years of age.